

# Environment Statistics and the FDES in Jamaica

**Environment Statistics and Climate Change Statistics Workshop**  
**4–8 November 2019**  
**St Georges, Grenada**

Janet Geoghagen-Martin  
Director, Censuses, Demographic & Social Statistics Division  
Statistical Institute of Jamaica



# Contents

- Environment statistics programme
- Products
- Framework for the Development of Environment Statistics 2013 & Environment Self-Assessment Test (ESSAT)
- Expert Group on Environment Statistics (EGES)
- Products related to the FDES



# Environment Statistics Programme in Jamaica

## **Sida Project 2000–2002**

- Compilation of environment statistics using the pressure-state-response system (PSR)
- Introduction to environmental accounts
- Environment protection expenditure (EPE)
- Household survey

## **Framework for the Development of Environment Statistics (FDES) 2009–present**



# PRODUCTS

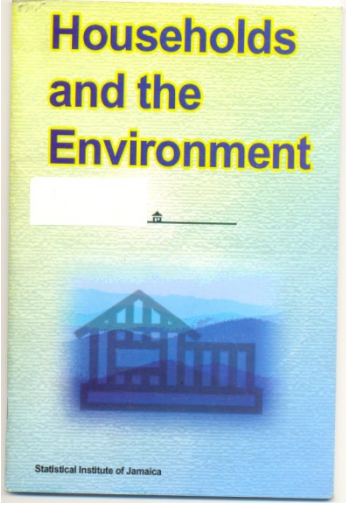
Environment Statistics and State of the Environment Report and 2001

Households and the Environment 2002

JAMAICA'S ENVIRONMENT



ENVIRONMENT STATISTICS  
AND  
STATE OF THE ENVIRONMENT REPORT







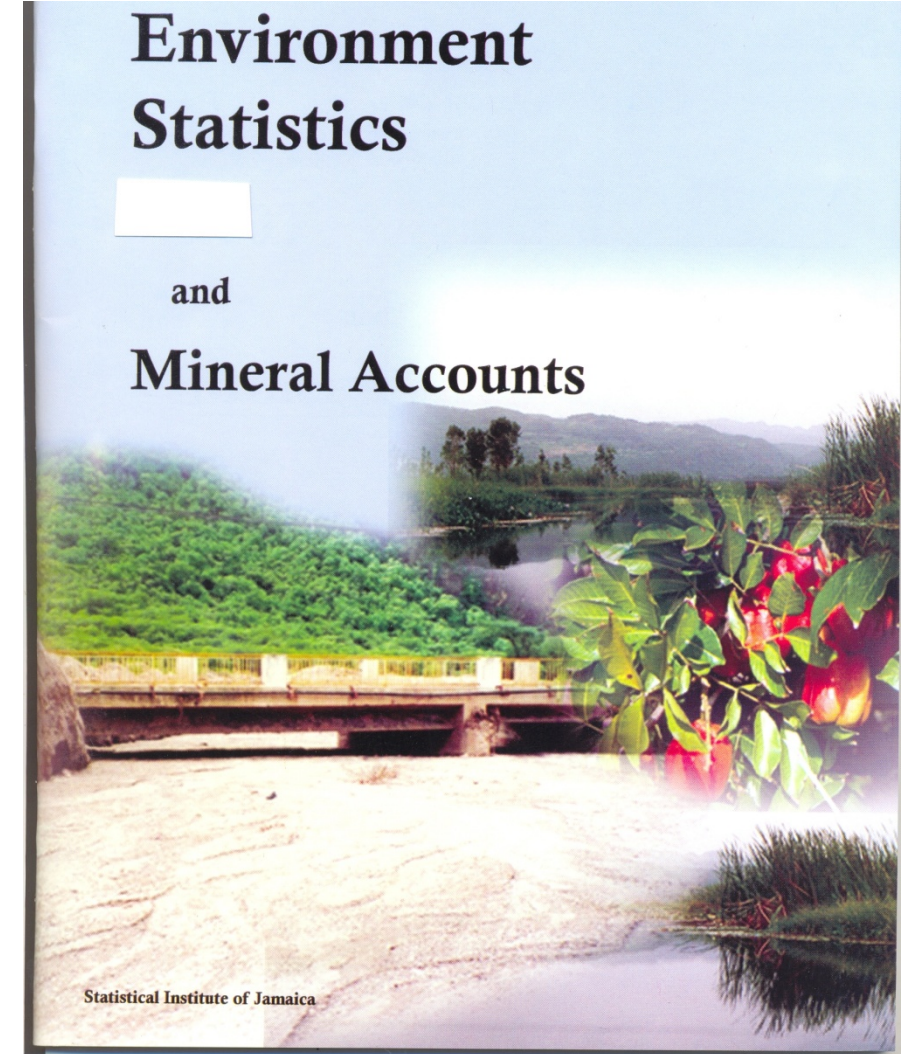
## PRODUCTS

### Jamaica's Environment in Your Pocket 2002



### Environment Statistics 2003 and Mineral Accounts

Includes an EPE survey conducted  
in 2002.

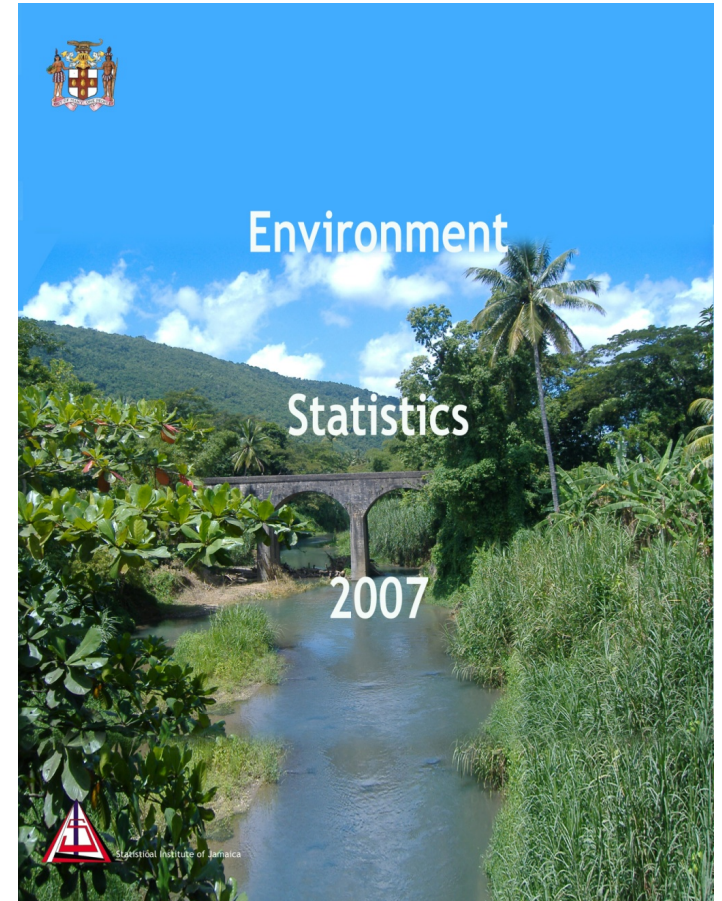
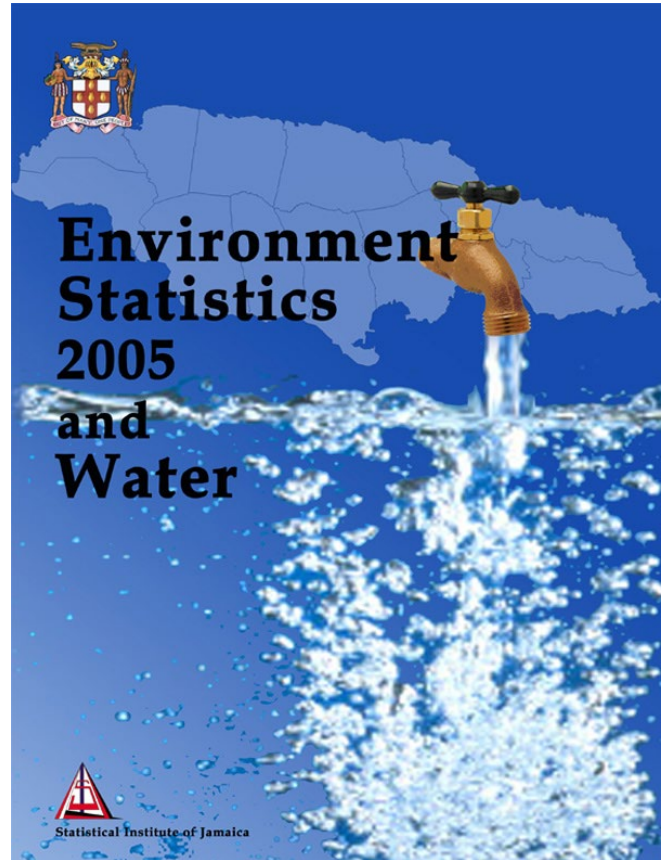




# OTHER PRODUCTS

Environment Statistics 2005  
and Water

Environment Statistics 2007





# OTHER PRODUCTS

## Household Environment Survey 2008

## Millennium Development Goal 7 Indicators for Jamaica 2011



### Household Environment Survey 2008

#### Introduction

The *Household Environment Survey 2008* was carried out as part of the 2007 Census of Agriculture programme and covered the environmental aspects of agriculture. The survey sought to determine the structure and utilisation of gardens by households in Jamaica as well as to determine losses from natural disasters. The survey was conducted along with the July 2008 labour force survey and administered as a separate household questionnaire to randomly selected households of the survey sample.

The Statistical Institute of Jamaica's labour force survey July 2008 sample provided the frame from which a total of 4,140 dwellings, covering the fourteen parishes of Jamaica, were selected for the household environmental survey (HES) 2008 (see Appendix I). The design used for the labour force survey is a two-stage stratified random sampling design, with the first stage being a selection of primary sampling units and the second stage, a selection of dwellings within the primary sampling units. Dwellings for the HES 2008 were randomly selected from the labour force survey sample.

The questionnaire (see Appendix II) consisted of twenty questions on four pages and was administered only to heads of households. It was designed to be as simple as possible and was divided into the following three sections:

- Section 1 – Identification
- Section 2 – Gardens
- Section 3 – Natural Disasters

The socio-economic data of the survey respondents as it relates to age, sex, level of education and economic activity status was garnered from the 2008 labour force survey sample.

#### Contents

Characteristics of Survey Respondents.....	2
Presence of a Garden.....	2
Main Source of Water and Method of Watering Garden.....	3
Conservation of Water in the Garden.....	5
Crowing of Fruits and/or Vegetables.....	7
Use of Manure and Chemical Fertilisers.....	8
Use of Pesticide/Herbicide and Alternative Methods of Pest Control.....	9
Rearing of Livestock and Poultry.....	12
Views on the Use of Chemical Fertilisers and Pesticides.....	13
Natural Disasters.....	14
Effects.....	15
Impacts on Livelihoods.....	16
Appendix I.....	17
Appendix II.....	20



### Millennium Development Goal 7 Indicators for Jamaica

#### Introduction

An environmental indicator is a simple measure that tells what is happening in the environment. Due to the complexity of the environment and the multiplicity of variables needed, indicators generally provide a more practical and economical way of tracking the state of the environment.

The **Millennium Development Goals (MDGs)** were adopted after the United Nations

Millennium Declaration of 2000. The declaration signified the commitment of all United Nations member states to the right to development, peace and security, gender equality, the eradication poverty and sustainable human development. The eight MDGs embedded in that declaration included 18 time-bound targets. Most MDG targets have a deadline of 2015 with 1990 being the baseline against which progress is gauged.

**Goal 7** of the millennium development goals (MDGs) is to **ensure environmental sustainability**. The Goal 7 targets and their corresponding indicators are listed below.

**Target 7.A:** Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources

- 7.1 Proportion of land area covered by forest
- 7.2 CO<sub>2</sub> emissions, total, per capita and per \$1 GDP (PPP)
- 7.3 Consumption of ozone-depleting substances
- 7.4 Proportion of fish stocks within safe biological limits
- 7.5 Proportion of total water resources used

**Target 7.B:** Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss

- 7.6 Proportion of terrestrial and marine areas protected
- 7.7 Proportion of species threatened with extinction

**Target 7.C:** Halve, by 2015, the proportion of the population without sustainable access to safe drinking water and basic sanitation

- 7.8 Proportion of population using an improved drinking water source
- 7.9 Proportion of population using an improved sanitation facility

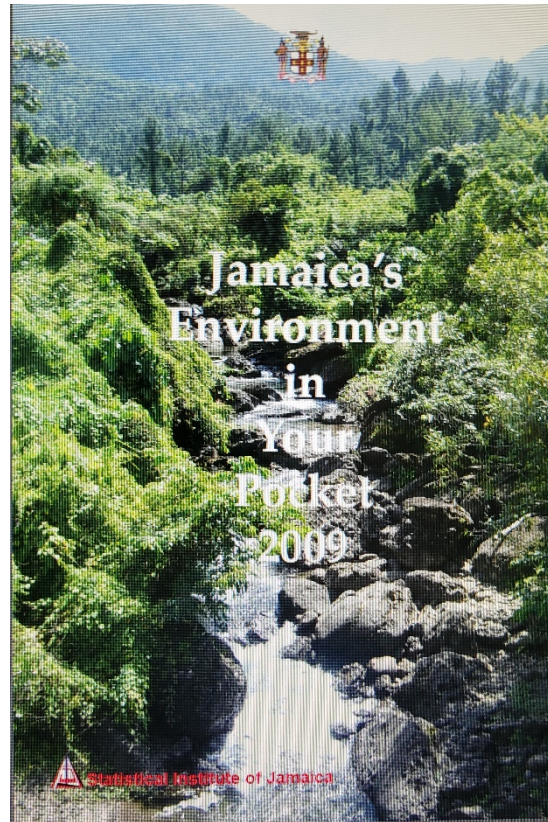
**Target 7.D:** By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers

- 7.10 Proportion of urban population living in slums



# OTHER PRODUCTS

Jamaica's Environment in Your Pocket  
2009 and 2013







# FDES 2013

- In 2009, the United Nations Statistics Division (UNSD) invited Jamaica to participate in an Expert Group Meeting on the Framework for the Development of Environment Statistics (FDES).
- 2012 participation in a pilot test of the draft core set of environment statistics in collaboration with NEPA. The Environment Statistics Self-Assessment Tool (ESSAT) was used for this test.
- The FDES was finalised in 2013.
- 2014, Jamaica participated in an IDB-sponsored project. The ESSAT was used to evaluate the coverage of environment statistics.
- In 2014, Jamaica was invited to participate in an Expert Group on Environment Statistics (EGES). Jamaica is the current chair for the meetings of this group.



# ESSAT

## • 2012 ESSAT

- Discovered that there was more data available in ministries, departments and agencies (MDAs) than previously thought.
- Greater understanding of the statistics and information needed to produce environment statistics
- **Per cent of available data:** 41%, 24%, 16%, 58%, 49%, 55%

## • 2014 ESSAT

- 40%, 35%, 46%, 45%, 41%, 49%

IDB-funded Project: Developing and Strengthening of Official Environment Statistics through the Creation of a Regional Framework in Latin America and the Caribbean

The ESSAT was used for an online pilot test in Jamaica and Costa Rica.

## • 2019 ESSAT (preliminary)

- 45%, 38%, 42%, 65%, 51%, 55%



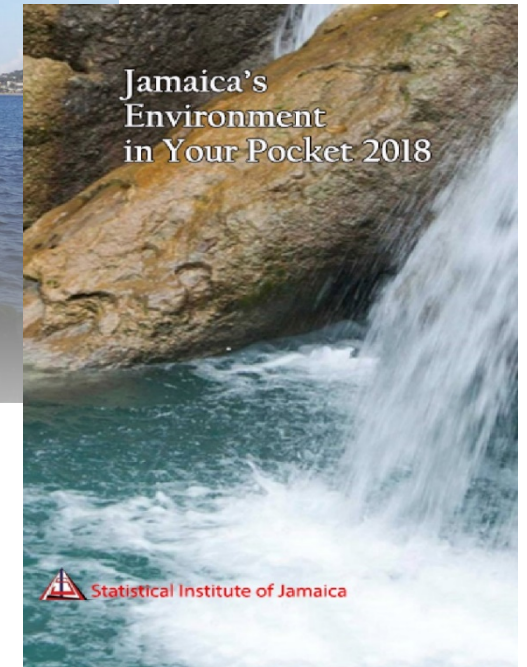
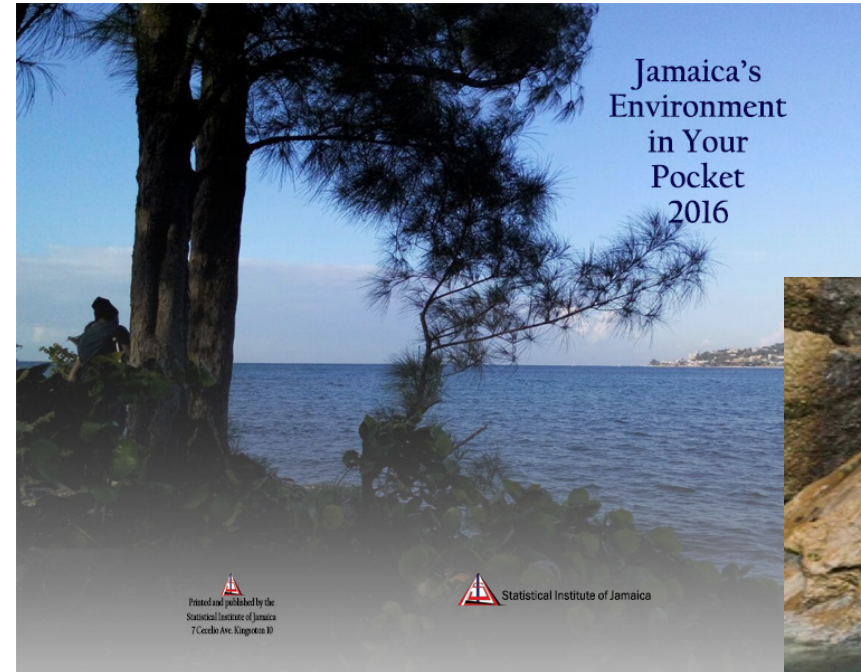
# Products Using the FDES

## Jamaica's Environment in Your Pocket 2015, 2016 and 2018

The 2015 and 2016 reports were produced using the guidelines under the FDES.

For the 2018 report, the components of the FDES were used to organise the chapters in the report.

- More up-to-date list of topics in a framework.
- Statistical topics are lead to more streamlined list.
- Core set of statistics are basic set that can be easily collected and are available from administrative data.



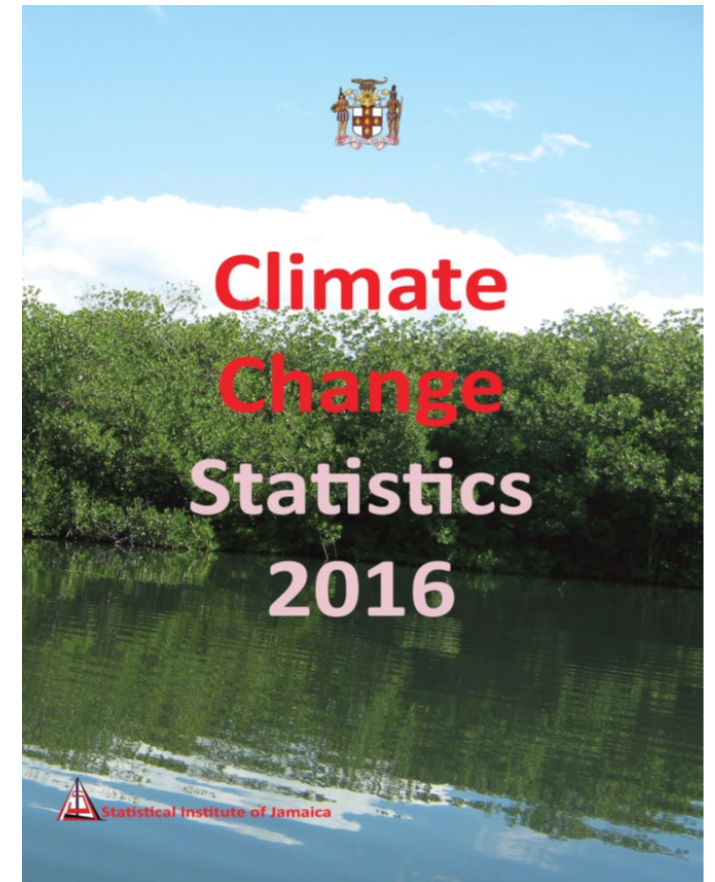
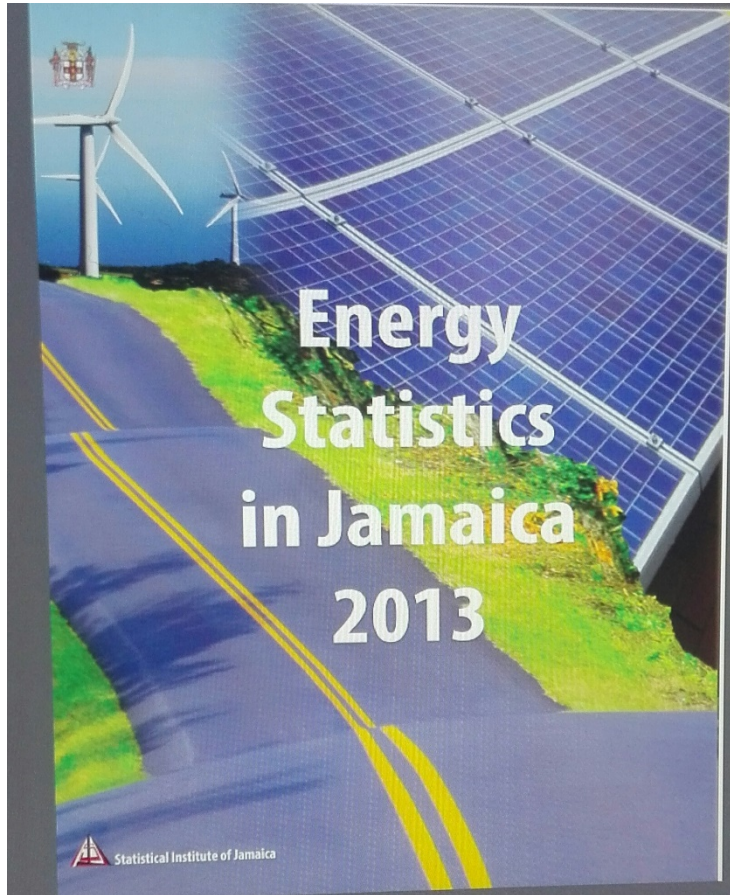


## PRODUCTS

### Energy Statistics in Jamaica 2013

### Climate Change Statistics 2016

Use of the climate change statistics cross-cutting theme from the FDES.





# Sources of Data

A selection of data sources:

- National Environment and Planning Agency
- Meteorological Office of Jamaica
- Ministry of Science, Energy and Technology
- National Solid Waste Management Agency
- National Water Commission
- Water Resources Authority
- National Irrigation Commission
- Mining and Geology Division
- Jamaica Bauxite Institute
- Office of Disaster Preparedness and Emergency Management
- Jamaica Fire Brigade
- Planning Institute of Jamaica
- Internal sources
  - Household survey: Jamaica Survey of Living Conditions
  - International Merchandise Trade
  - National Accounts

**Importance of meeting with data providers.**

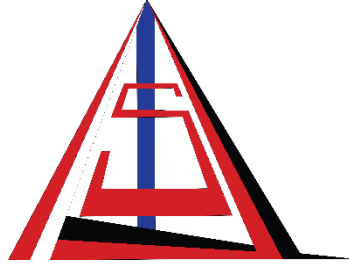
Each meeting would provide more sources of information and greater understanding of the available data.



# Challenges

- No data available for some environment statistics and indicators.
- Data was only available for some through surveys and censuses which may be every five or 10 years.
- No memoranda of understanding with agencies to provide data. Personal contact through e-mails, phone calls or personal visits.
- No metadata provided with information received from agencies.
- Some agencies not equipped with staff or other resources to collect data needed.
- Limited staff available to produce environment statistics.
- Agencies sometimes don't see need for data.





**STATISTICAL INSTITUTE OF JAMAICA**

**(STATIN)**

**7 CECELIO AVENUE**

**KINGSTON 10**

**JAMAICA W.I.**

**1 (876) 630-1600**

 **INFO@STATINJA.GOV.JM**

 **STATINJA.GOV.JM**



Find us on  
**Facebook**

**@ STATINJA**



**Thank You for Your  
Attention**